

# M.A./M.Sc. (Final)

## Advanced Geography of India

### Paper V<sup>th</sup>

#### Unit – I

Physiographic and drainage systems, Soils & Vegetation, Origin and Mechanism of Indian Monsoon, Schemes of Natural Physiographic and climate classifications.

#### Unit – II

Population growth distribution & density. Sex Ratio and literacy, Population Problems and policies. Water resources, and multipurpose irrigation projects.

#### Unit – III

Resources conservation and utilization of land, mineral, water, biotic and marine resources. Minerals and Power resources: Use, distribution and Production in India, Iron, Copper, Coal and Petroleum.

#### Unit – IV

Types of Agriculture, Geographical condition, distribution and production of following crops- Wheat, Rice, Sugarcane, Cotton Tea, Coffee. Green revolution.

#### Unit- V

Major Industry – Iron and steel, Cement, Cotton Textiles and Sugar industries, Trade and Transport. Industrial Regions and Economic Regions of India and regional economic disparities.

#### Books Recommended:-

1. Govt. of India : Five Year Plans of India.
2. Sharma & Coutinho: Economic and Commercial Geography of India, Vikas, Delhi.
3. Singh, R.L. : India : A Regional Geography, N.G.S.I. Varanasi, 1971
4. Galyna & Sen. Gupta : Economic Regions and Regionalization in India, 1968
5. Chaudhary, M.R. : Indian Industries Development and Location.
6. Spate, O.H.K. : India and Pakistan, Methuen & Co., London
7. Krishna, M.S. : Geology of India and Burma, Law Journal Office, Madras.
8. Kumar, L.S.S. & : Agriculture in India, Vol. I & II, Asia Publishing Others House, Bombay.
9. Indian Year Book, Latest Edition : Publication Division Delhi. Irrigation Atlas of India. Irrigation Atlas of India.
10. Chatteji, S.B. : Climatology of India, Calcutta University, Calcutta
11. Sharma, T.R. : Location of Industries of India, Hindi Kitab, Bombay.
12. Gazetteers of India : Publication Division, New Delhi.

## M.A./M.Sc. (Final) Geography Paper-VI (A) Population Geography

### Unit-I

Meaning scope and development of population geography.  
Population geography and demography.  
Sources of data : Population counts and census; sample data.  
Reliability of data and problems of mapping population data.  
Data errors and their detection and correction.

### Unit-II

Theoretical issues of population distribution.  
Measures of population distribution  
World pattern of population distribution  
Determinants of population distribution.  
Population distribution in India; patterns and determinants

### Unit-III

Population growth since prehistoric period.  
Demographic transition theory and population growth models.  
Fertility analysis fertility patterns and its determinants.  
Mortality analysis, patterns and its determinants.  
Growth of population in India; patterns, components and determinants.

### Unit-IV

Age structure and sex composition.  
Educational composition.  
Urbanisation.  
Economic characteristics and occupational structure.  
Population composition of India: characteristics and problems.

### Unit-V

Population control movement and policies. Woman and child health programme and contemporary issues, ageing of population, declining sex Ratio, HIV AIDS, world urbanization: trends, patterns and Challenges.



### **Suggested Readings:**

1. Bhende, Asha A. And Tara Kanitkar, Principles of Population Studies, Himalaya Publishing Houses.
2. Bilasborrow, Richard E. and Daniel Hogan, Population and Deforestation in the Humid Tropics International Union for the Scientific Study of Population, Belgium, 1999.
3. Bogue, D.J. Principales in Demography, John Wiley and Sons, New York, 1969.
4. Bose, Ashish et al, Population in India's Development: 1947&2000, Vikas Publishing House, New Delhi, 1974.
5. Census of India, India: A State Profile, 1991.
6. Clarke Johan I., Population Geography and the Developing Countries Pergamum Press Inc. Oxford, 1971.
7. Clarke Johan I., Population Geography, Pergamon Press Inc. Oxford, 1973.
8. Crook, Nigel, Principle of Population and Development, Pergamon Press Inc. Oxford, 1971.
9. Garnier Beaujeu J. Geography of Population, Longman, London, 1970.
10. Kochhar, Rajesh, The Vedic Popole: Their History and Geography, Orient Longman Ltd., New Delhi, 2000.
11. Mamoria, C.B., India's Population Problems, Kitab Mahal, New Delhi, 1981.
12. Mitra Asok, India's Population: Aspects of Quality and Control, Vol. I & II, Abhinav Publications, New Delhi, 1978.
13. Premi, M.K. India's Population; Heading Towards a Billon, S.R. Publishing Corporation, New Delhi, 1991.
14. Shryock, Honry, S. et al, The Methods and Materials of Demography Vol. I & II, U.S. Bureau of the Census.

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Agricultural Geography

Unit -I

- 1. Concept, origin, dispersal and Development of agriculture through the ages
- 2. Agricultural Geography- History, Nature & Scope.
- 3. Factors affecting Agriculture :Physical, Social and Economic

Unit -II

- 1. Water resources- irrigation ;water quality criteria; and water balance.
- 2. Types of Agriculture and their characteristics- (i)Shifting cultivation; Plantation agriculture,(ii) Extensive and Intensive agriculture; Dry farming.

Unit -III

- 1. Concept, history, principles and objectives of Agricultural land use.
- 2. land use surveys.
- 3. land classification - American pattern and Indian pattern.

Unit -IV

- 1. surveys, Types, Mapping and problems of Land Use Data.
- 2. Von Thunen's Agricultural Location theory.
- 3. Whittlsey's Agricultural Regions of the World .

Unit -V

- 1. Meaning and methodology of Crop combination regions- Detailed study of Weaver's, Doe's and Prof. S.M. Rafi Ullah's method.
- 2. Agricultural efficiency.
- 3. Crop ranking; Cropping intensity; Crop diversification and Specilization

**Books Recommended :**

1. I.C.A.R. - Soil and Water Conservation Research (1956-71)
2. I.C.A.R. - Soil Conservation in India.
3. Sachchidananda- Social Dimensions of Agricultural Development, National Publishing House, Delhi
4. Noor Mohammed- New Dimensions in Agriculture, Concept, New Delhi, 1991
5. Stamp, L.D. - Land of Britain - Its use and Misuse.
6. Kostowicki - World Types of Agriculture, Polish Academy, Warsaw
7. Shafi,M. - Land Use in Eastern U.P., Aligarh University Press.
8. Misra,V.C., Ayyar, N.P. Kumar -Applied Geography, Ali Memorial Number, University Press, Agra
9. Singh, J. - An Agricultural Atlas of India :A Geographical Analysis, Vishal Publications, Kurukshetra.
10. Singh, J. - An Agricultural Geography of Haryana, Vishal Publications, Kurukshetra
11. Singh, J & Dhillon, S.S.- Agricultural Geography, Tata McGraw Hill, New Delhi
12. Noor Mohammed - Agriculture Land Use in India, Inter-India Public, Delhi
13. Ali Mohammed - Situation of Agriculture, Food and Nutrition in Rural India, Concept Publishing, Delhi
14. Ali Mohammed- Dynamics of Agriculture Development in India,Concept Publication Delhi
15. Symon, Leslie- Agricultural Geography, G.Bell & Sons Ltd., London, 1967
16. Singh, R.L. (ed.)- Applied Geography, B.H.U. Press, Varanasi
17. Kostrowickie- Agricultural Typology ; Polish Academy, Warsaw.

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**Unit - I**

Nature and Scope, Location factors in manufacturing & concept of optimum location, The Least Cost School and the Transport Cost School, The Market Areas School, The Marginal Location School.

**Unit - II**

Major Industries of India; Iron and Steel Industry, Copper Industry, Aluminium industry, Pulp and paper industry. The Cement Industry.

**Unit - III**

Important Industrial regions of the World, India, The Changing character of geographical concentration and impact of technological change, Formation of Industrial Regions and its changing character.

**Unit - IV**

Study of the following regions.

1. The Hooghlyside Industrial Regions
2. The Damodar Valley Industrial Region
3. The Ruhr Basin Industrial Region
4. The Great Lakes Industrial Region

**Unit-V**

The Textile Industry, Multi-locational Industries-Iron and Steel, Aluminium, Oil Refining, Market Oriented Industries-Furniture, Textile Machinery. Footloose Industries-Automobile, Raw Material oriented Industries.

**Books Recommended :**

1. Lloyd and Dicken : Location in Space : A Theoretical Approach to Economic Geography.
2. M.C. Cart & Limberg Hodder & Lec : Economic Geography
3. Smith, D.E. Cox & K.P. Man : Industrial Location, A Economic Geographic Analysis, Location and Behaviour - An Introduction to Human Geography.
4. Riley, R.C. - Industrial Geography, Chalto & Windus, London, 1973
5. Alexander, J.W. - Economic Geography, Prentice Hall, New Delhi.
6. Boesh - A Geography of World Economy.
7. Estall, R.C. & Buchanan, R.O. - Industrial Activity & Economic Geography, Hutchinson Co., London.
8. Hoover, E.M. - The Location of Economic Activity, McGraw Hill Books Co., New -York
9. Chodhary, M.R. - Industrial Geography of India

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**M.A. / M.Sc. (Final) Geography**  
**Paper - II : Transportation Geography**

**Unit - I**

- a) Meaning, scope and development of transportation geography.
- b) Factors associated with the development of transport system: historical, technological, physical, economic, political and social.
- c) Spatial interaction: ideas of Edward Ullman; functional approach of M.E. Hurst.
- d) Concepts of distance: point to point distance and distance in a group of points.
- e) Measures of distance: physical, time, economic and perceptual.

**Unit - II**

- a) The functional region, linkages and nodes, diagrammatic representation of hinterlands and hierarchies.
- b) Transportation and spatial processes: regional specialisation and agglomeration economies.
- c) Cost of overcoming distance: transportation cost, price and rate structure.
- d) Transport costs as factor of production.
- e) An idealised process of transport development.

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### Unit - III

- a) Graph theoretic concepts.
- b) Networks as models.
- c) Types of connectivity: concept and indices of connectivity.
- d) Measures of nodal accessibility: the network as a matrix; degree of connectivity: direct and indirect connectivity.
- e) Indices of accessibility: accessibility matrix, matrix T, shortest path matrix and valued matrix; sinuosity.

### Unit - IV

- a) Spatial patterns of flow.
- b) Gravity model: basic model and modifications.
- c) Gravity model and the traffic and commodity flow.
- d) Allocation model: transportation problem and optimum solution.
- e) Flow in a capacitated network.

### Unit - V

- a) Negative impacts of transportation: social, accidents and other impairments.
- b) Economic and environmental aspects of urban transport problems and their control.
- c) Alternative transport system in mega cities.
- d) Transport systems in the developing countries.
- e) Development of the Indian surface transport system.

### Suggested Readings:

1. Abler, Adams and Gould, Spatial Organisation: The Geographer's View of the World, Prentice Hall, New York.
2. Buchanan, C.D., Traffic in Towns, Buchanan Report, HMSO, London.
3. Hagget, P. et al, Locational Analysis in Human Geography, Edward Arnold, London, 1977.
4. Haggett, P. and R.J. Chorley, Network Analysis in Geography, Arnold, London, 1968.
5. Hay, A. Transport Economy, Macmillan, London, 1973.
6. Hoyle, B.S. (ed.) Transport and Development, Macmillan, London, 1973.
7. Hoyle, B.S. and R. Knowles, Modern Transport Geography, Wiley Europe.
8. Hurst, M.E.E., Transportation Geography: Comments and Readings, McGraw Hill, New York, 1974.
9. Kansky, K.J., Structure of Transportation Network, Research Paper No. 48, Department of Geography, University of Chicago.
10. Knowles, R. and J. Wareing, Economic and Social Geography, Heinemann.
11. Lowe, J.C. and S Moriyadas, The Geography of Movement, Houghton Mifflin Co., Boston.
12. Munby, D., Transport, Penguin.
13. Patankar, P.G., Urban Transport in Distress, Central Institute of Road Transport, Pune.
14. Robinson, H. and C.G. Bamford, Geography of Transportation, McDonald and Evans, London, 1978.
15. Taaffe, E.J. and et al, Geography, Prentice Hall Inc.

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## Urban Geography

### Paper VII-A

#### Unit-I

Aims and scope of Urban Geography. Factors affecting the growth of towns during Neolithic period, Greek and Roman period, Dark Ages, Medieval period, Renaissance period, Industrial Revolution and Modern times. Chief characteristics of the towns of each period.

#### Unit-II

Trends of urbanization in the world, Urbanization in India since 1901, major characteristics, problems and Solutions.

#### Unit-III

Definitions of Urban centers, Chief characteristics of modern town, Functional structure of towns, Functional structure of towns- C.B.D., Residential areas, manufacturing areas and other functional areas City Conurbation, umland Metropolis and Megalopolis, Morphology of Indian cities. Central place theory (Christaller and Losch)

#### Unit-IV

Spatial pattern and distribution of urban centres. Classification of cities. Urban Rank-Size relationship. The Basic and Non-Basic concept of urban economic functions and its application.

#### Unit-V

Rural urban fringe, The city in the developing world - special reference to India  
Unplanned and planned growth of town : Planning of city, Concept of Master-Plan.

#### **Book Recommended:**

1. Taylor, G : Urban Geography, Methuen & Co., London
2. Geddes: Study in City Development.
3. Singh, R.L. : Banaras : A Study In Urban Geography, Students Friends, Allahabad
4. A.E. Smiles : The Geography of Towns, Hutchinson University Library, London
5. Dickinson, R.E.: City Region and Regionalism, Routledge and Kegan Paul, London.
6. Harold M. Mayer : Readings in Urban Geography, Central Book Depot., Allahabad.
7. V.L.S. Prakash Rao : Towns of Mysore State, Statistical Publishing House, Calcutta
8. Shah Manzoor Alam : Hyderabad and Secundrabad Twin City : Studies in urban Geography, Allied publishers, Delhi.
9. R.L. Singn : Bangalore : An Urban Survey, National Geographical Society of India, B.H.U., Varanasi.
10. N.V. Sovani : Urbanization and Urban India, Asia Publishing House, Bombay.
11. Hudson. F.S. : Geography of Settlement
12. Johnson, R.H. : Urban Geography.
13. Ambedkar : Town and Country Planning
14. Turner, R. : India's of Urban Future, Oxford University Press, Bombay, 1962
15. Carter : The Study of Urban Geography, Edward Arnold, London, 1972
16. Northan, R.C. Urban Geography, John Wiley & Sons, N.Y. 1976
17. Urban Research Method, Von Nostrand Co. Inc., Toronto, 1961

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VII B,

## Remote Sensing and GIS

### Unit- I

Historical development of Remote sensing as a technology - Relevance of remote sensing in Geography, Concepts and basics. Energy source, energy and radiation, energy interactions in the atmosphere and earth surface features. Remote sensing systems : platforms and sensors.

### Unit- II

Air Photos and Photogrammetry : Elements of Photographic system : Major type, scales and ground coverage, resolution, radiometric characteristics, films, filters, aerial cameras, fundamentals of photogrammetry, elements of vertical photographs, stereoscope.

### Unit- III

Airphoto interpretation : shape, size, pattern, tone, texture, shadows, site, advantage and limitation of remote sensing, comparison of map, aerial photographs and satellite imagery.

### Unit- IV

Satellite Remote Sensing : History and development of various types of satellite and space programme with special reference to Indian Space Research programme. Types of imagery, techniques of visual interpretation, ground verification.

### Unit- V

Computers in Geography, Digital image processing , supervised and unsupervised classification, GIS - Introduction, definition and scope, its application in various fields and planning, GPS.

### Books Recommended:

1. American Society of Photogrammetry: Manual of Remote Sensing ASP, Falls Church, VA. 1983, Vol. I, II
2. Barrett, E.C. & L.F. Curtis : Fundamentals of Remote Sensing and Air photo Interpretation, McMillan, New York, 1992
3. Campbell, J. : Introduction of Remote Sensing, Guilford, New York, 1989
4. Curran, Paul J. : Principles of Remote Sensing, Longman, London, 1985
5. Hord, R.M. : Digital Image processing of Remotely Sensed Data, Academic, New York, 1989
6. Luder, D. : Aerial Photography Interpretation : Principles and
7. Pratt, W.K. : Digital Image Processing, Wiley, New York, 1978
8. Rao, D.P. (eds.) : Remote Sensing for Earth Resources, Association of Exploration, Geophysicist, Hyderabad, 1998
9. Thomas, M. Lillesand & Ralph W. Kefer : Remote Sensing and Image Interpretation, John Wiley & Sons, New York, 1994
10. Wolf Paul, K. : Element of Photogrammetry, McGraw Hill Book. Co.
11. Chouhan, T.S. & K.N. Joshi : Applied R.S. and Photo Interpretation, Vigyan Prakashan, Jodhpur.
12. Gautam, N.C. : SPGU - Technology of Geography, N.R.S.A. Hyderabad
13. Singh, S. : Remote Sensing Technology, Scientific Publication, Jodhpur
14. Rao, D.P. (eds.) : Remote Sensing for Earth Resources, Association of Exploration Geophysicists, Hyderabad. 1998

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Unit- I

Meaning and scope of Bio- Geography, History of Zoo- Geography and Plant Geography, Ecology, Eco-system, Plant response to environment.

Unit- II

Barriers to distribution and means of dispersal of plants. Factors controlling forest distribution. Characteristics and distribution of Equatorial and temperate forests and grasslands.

Unit- III

Climate change and their effect on the plant cover, condition of existence for animals. Barriers to distribution and means of dispersal of animals. Distribution of animals.

Unit- IV

Zoo Geographical regions. Aquatic environment and life, marine and fresh water Fauna. Vegetation and floral regions of India, economic importance.

Unit- V

Conservation of wild life and forests, Pollution and its effect on wild life and vegetation. National Parks and Sanctuaries of India. Biodiversity and its conservation.

**Books Recommended :**

1. Newbegin : Plant and Animal Geography
2. Cline : Foundation of Plant Geography
3. G. Ponal : The Geography of Flowering Plants.
4. Darlington : Zoo- Geography
5. Schimper : Plant Geography
6. S. L. Hora : Fundamental Conception of Zoo- Geography, N.G.S.I. Banaras
- 7 S. L. Hora : Terrestrial Fishes and the Significance of their Distribution in Geographical Studies, N.G.S.I. Banaras
8. H.S. Mathur : Bio- Geography

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**Climatology**  
**Paper VII<sup>th</sup> D**

**Unit – I**

Earth- atmospheric system: Components, characteristics and interactions, Current trends in climatology, Recent Concerns – climate change and its impact, Microclimatology – influencing factors – forest and urban climates, Agroclimatology – soil-plant-climate relationship.

**Unit – II**

The basis of modern climatology, composition and layered structure of atmosphere, atmospheric energy: air temperature, the energy balance, atmospheric pressure and pressure belts, the planetary wind system, moisture in the Atmosphere: humidity and its expression, adiabatic non-adiabatic processes, stability and instability, evaporation: factors affecting evaporation, precipitation types, world precipitation pattern.

**Unit – III**

Air masses: origin, classification, types, Fronts: Frontogenesis and Frontolysis- classification of fronts, Extra-tropical cyclones: formation, impact, Weather forecasting: traditional and modern techniques.

**Unit – IV**

Basis of climatic classification, Koppen's system of climatic classification- salient features, distribution of types, Thornthwaite's scheme of climatic classification- application, Comparative analysis of Koppen and Thornthwaite classifications.

**Unit – V**

The Monsoon: characteristics, economic importance, A Origin of monsoon: classical and recent views, prediction of monsoon: problems and prospects.

### **Recommended Readings:**

1. Barry, R.S. & Chorley, R.J. (1971): Atmosphere, Weather and Climate, ELBS, Methuen & Co. Ltd. U.S.A.
2. Griffiths J.F. (1966): Applied Climatology-An Introduction, Oxford University Press, London.
3. Harp, H.J. and Trinidade, O.D. (eds) (1990): Climate and Development, Springer Verlag, U.S.A.
4. Lal. D.S.(1997): Climatology, Sharda Pustak Bhawan, Allahabad.
5. Mather, J.R.(1974): Climatology: Fundamentals and Applications, McGraw Hill Book Co. New York.
6. McBoyle, G.(1973): Climate in Review, Houghton Mifflin Co., Boston.
7. Oliver, J.E. and Hidose, J.J. (1984): Climatology An Introduction, Charles and Merrill, U.S.A.
8. Robinson, P.J. and Henderson-Sellers, A.(1999): Contemporary Climatology, Pearson Education, London.
9. Subrahmanyam, V.P.(ed)(1983): Contribution to Indian Geography, Heritage Publishers, New Delhi, a) Vol.III-General Climatology b) Vol. IV- Applied Climatology.
10. गुप्ता एस.एल. 2000: जलवायु विज्ञान। हिन्दी माध्यम कार्यान्वयन निदेशालय, दिल्ली विश्वविद्यालय, दिल्ली।
11. सिंह एस. 2006: जलवायु विज्ञान। प्रयाग पुस्तक भवन, इलाहाबाद।

### **Further Readings:**

1. Bhuthani, Smita, Our Atmosphere, Kalyani Publishers, Ludhiana, 2000.
2. Critchfield, H.J. General Climatology, Prentice Hall, N.J., 1975.
3. Frederick K. and Edward J. Tarbuck, The Atmosphere: An Introduction to Meteorology, Prentice Hall of India pvt. Ltd. New Delhi, 1995.
4. Lydolph, P.E. The Climate of the Earth, Rowman Nad Allanheld, Totowa, New Jersey, 1985.
5. Rumney, G.R., Climatology and the World Climates, Macmillan, London, 1968.
6. Strahler, A.N. Modern Physical Geography, John Wiley and Sons, New York, Singapore, 1987.
7. Thompson Russell D., Applied Climatology – Principles & Practice, John Willey, New York, 1997.
8. Trewartha, G.T. An Introduction to Climate, McGraw Hill, New York, 1980, Fifth Edition (International Student Edition).

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**M.A. / M.Sc. (Final) Geography**  
**Paper : Political Geography** ✓

**Unit - I**

- a) Nature, scope and subject matter of political geography.
- b) Geopolitics: meaning and contributions of Emmanuel Kant, Karl Ritter, Friedrich Ratzel, H.V. Tiritischke, Rudolf Kjellen and Karl Haushofer.
- c) Development of political geography. Concepts and contributions of:
- d) Alfred Thayer Mahan, H.J. Mackinder and Alexander-de-Seversky.
- e) D.W. Meinig, N.J. Spykman and Hooson.

**Unit - II**

- a) Recent trends in political geography.
- b) The functional approach in political geography.
- c) The unified field theory of political geography.
- d) Nature of administrative areas.
- e) Geography of public policy and finance.

**Unit - III**

- a) Concept of nation, state and nation state.
- b) The state as a politico-geographical region: location, shape, size.
- c) Resources of state: natural, cultural and human.
- d) Population: growth, quality and problems.
- e) Frontiers and boundaries: types and functions, boundary making and boundary problems.

**Unit - IV**

- a) Core areas and capitals.
- b) Unitary and federal states.
- c) The impress of government on landscape.
- d) Politics of world resources.
- e) Politics of globalization and WTO.

**Unit - V**

- a) Electoral studies in political geography.
- b) Conceptual model of voting decision.
- c) Gerrymandering: gerrymandering in relation to India.
- d) Geographical influence on voting behaviour of the electors in India.
- e) Spatial pattern of voting behaviour in Rajasthan.

**Suggested Readings:**

1. Boggs, S.W., International Boundaries: A Study of Boundary Function and Problems, Columbia University Press, New York.
2. Dikshit, R.D., Political Geography: A Contemporary Perspective, Tata McGraw Hill, New Delhi, 1996.

  
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3. Fawcett, C.B., Frontiers: A Study in Political Geography, Oxford University Press, London.
4. Fisher Charles A., Essays in Political Geography, Methuen, London, 1968.
5. John R. Short, An introduction to Political Geography, Routledge, London, 1982.
6. Moodie, A.E., Geography Behind Politics, Hutchinson University Press, London.
7. Percy, G.E. and R.H. Fifield, World Political Geography, Thomas Y. Crowell Co., London.
8. Pound N.J.G., Political Geography, McGraw Hill, New York, 1972.
9. Prescott, J.R.V., Political Geography, Methuen & Co., London.
10. Sukhwai, B.L., Modern Political Geography of India, Sterling Publishers, New Delhi, 1986.
11. Taylor, Peter; Political Geography Longman, London, 1985.
12. Wigert, H.W. et al, Principles of Political Geography, Appleton Century-Crofts Inc. New York.
13. चौहान पी.आर.: राजनीतिक भूगोल (वसुन्धरा प्रकाशन, गोरखपुर)
14. भट्टाचार्य, ए.एन. एवं एस.एल.: राजनीतिक भूगोल (राजस्थान आच्छा हिन्दी ग्रन्थ अकादमी, जयपुर)
15. दीक्षित, आर.डी.: राजनीतिक भूगोल - समसामयिक परिदृष्टि (प्रेन्टिस हॉल ऑफ इण्डिया)
16. सक्सेना, एच.एम.: राजनीतिक भूगोल (रस्तोगी पब्लिकेशन्स, मेरठ)
17. कपूर कालीदास: भारतीय भू-नीति (हिन्दी समिति सूचना विभाग)
18. कोलोशोव, वी.: राजनीतिक भूगोल (प्रगति प्रकाशन, मास्को)
19. दीक्षित श्रीकान्त : राजनीतिक भूगोल (ज्ञानोदय प्रकाशन, गोरखपुर)

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Research Methodology

Unit-I

Research: Geographical Research, Problems of Geographical Research, Data; Types, Nature and source of data, Importance of Objectives, Hypothesis, Review of literature, Methodology.

Unit- II

Preparation of Research project and report writing, Cartographic representation of data, Graphs and Diagrams, Techniques of co-relation analysis.

Unit - III

Nearest neighbour analysis with examples, Sampling, Methods of delimiting regions - Resource Regions, Economic, Industrial, Agricultural and Planning regions.

Unit- IV

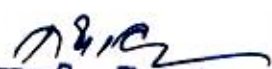
Regional population analysis - Population projection, Migration Analysis, Delimiting urban and market spheres of influence.


Unit-V

Cartographic Techniques and Map analysis, Basics of Remote Sensing, Aerial photography and G.I.S., Integrated area development planning.

**Books Recommended :**

1. David Unwin, : Introductory Spatial Analysis, Methuen, London, 1981
2. Gregory, S. : Statistical Methods and the Geographer, Longman, London, 1978
3. Mahmood, A. : Statistical Methods in Geographical Studies, Delhi, 1978
4. Maruice Yeats : An Introduction to Quantitative Analysis in Human Geography, McGraw Hill, New York
5. Peter Haggett, Andrew : Location Methods Vol. I and II Edward Arnold, London, D. Cliff & Allan Frey 1977

  
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अकादमिक-प्रथम

  
16-3-18  
Reviewer  
B.O.S. (Geography)

VIII C

Regional Planning

Unit - I

Conceptual and theoretical framework, merits and limitations for application to regional planning and development; changing concept of the region from an interdisciplinary view-point.

Unit- II

Concept of space, area and locational attributes. Approaches to delineation of different types of regions and their utility in planning. Planning process - sectoral, temporal and spatial dimensions.

Unit-III

Indicators of development and disparities. Regional development strategies - concentration v/s dispersal.

Unit- IV

Short- term and long term planning in a national context. Regional plans of India  
Regional development in India - problems and prospects..

Unit- V

Concept of Multi-level planning : Decentralised planning; Peoples participation in the planning process; Panchayati Raj system with special reference to Rajasthan.

Books Recommended :

1. Abler, R. et.al : Spatial Organisation : The Geographer's View of the World, Prentice Hall, Englewood Cliffs, N.J., 1971
2. Bhat, L.S. : Regional Planning in India, Statistical Publishing Society, Calcutta, 1973
3. Bhat, L.S. : Micro-Level Planning : A Case Study of Karnal Area, Haryana, K.B. Publications, New Delhi, 1976
4. Chorley, R.J. & Hagget, P.: Models in Geography, Methuen, London, 1967
5. Christaller, W. : Central Places in Southern Germany, Translated by C.W. Baskin, Prentice Hall, Englewood Cliffs, New jersey, 1966
6. Friedmann, J. & Alonso, W.: Regional Development Policy - A Case Study of Venezuela, M.I.T. Press Cambridge, Mass, 1966

24/12  
प्रयासी अधिकारी  
अकादमिक-प्रयम

Convener  
B. O. S. (Geography)





राज ऋषि भर्तृहरि मत्स्य विश्वविद्यालय, अलवर  
RAJ RISHI BHARTRIHARI MATSYA UNIVERSITY, ALWAR

Syllabus-Geography  
M.A./M.Sc. (Final)

Practical

Scheme of Examination

Min. Pass Marks:

36

Regular Candidate/Non-Collegiate

Max. Marks:

100

Bifurcation of Marks

Time

Written test

40

04 hrs.

Record work and viva voce

20+10

Village Project report and viva voce

20+10

N.B. In written test there shall be 02 questions from each section. Candidates have to answer 04 questions selecting at least one question from each section. All questions carry equal marks. Examination to be conducted in batches of not more than 20 candidates in any case. 12 hours of teaching practicals be provided for batch of 20 students per Week.

  
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अकादमिक-प्रशासन

# SYLLABUS

## Section A

Methods and techniques of representation of relief:

Methods and techniques of depicting relief Profile, gradients and calculation of slope, Block diagrams, hypsographic curves, altimetric frequency graph.

Interpretation of topographical maps:

A brief history of topographical maps of the world with special reference to India and their interpretation. Detailed study of such topographical sheets which depict typical geomorphological and cultural landscapes.

## Section B

Scanning and digitization of maps, knowledge of stereoscopic vision and types of stereoscopes, identification of cultural and physical features on aerial photographs, calculation of scale on air photo, number of runs, air photographs in each run and total air photographs for a given area.

## Section C

Field surveying and camp work: resectioning using plane table: two and three point problems, use of dumpy level, practical on contouring and profiles.

Parts and use of theodolite in traverseing and angle computation.

Camp Work: A topographical survey of a settlement of about 200 hectares of land will be done by organizing a camp at least for a week away from the centre of the institution and maps and reports of the same will be prepared with help of computer technology (word programme & Autocard). (Students are expected to stay in the camp at night).

## Books Recommended

B.C. Punmia 1988: Surveying and Field Work. Vol. I, Laxmi Publications, New Delhi.

Breed, C.B. and Hosmer, G.L.: The Principle of Surveying. Vol. I and II, New York.

Devis, R.E. and Foot, F.S.: Surveying theory and practice. Mc-Graw Hill Book Co., New York.

Gautam, N.C.: Urban Land use studies through Airphoto Interpretation .

Monkhouse, F.J. and Wilkinson, H.R. 1971: Maps and Diagrams. Methuen, London.

Roorke Engineering College: Manual of Surveying.

Robinson, A.H. et al. 2004: Elements of Cartography. John Wiley & Sons, Inc., New York.

Rampal, K.K. 1993: Mapping and Conflation: Methods and Techniques. Concept Publishing Company, New Delhi.

Singh, R.L. and Singh RPB 1991: Elements of Practical Geography. Kalyani Publishers, New Delhi.

Sharma, J.P. 2011: Practical Geography. Rastogi Publications, Meerut.

Tiwari, Z. 2009: Practical Geography. Prayag Pustak Bhawan, Allahabad.

T.R. Traby: Surveying theory and practice. John Willey and Sons, Inc., New York.

Thrillfall, H.S., A.: Text Book of surveying and Levelling. Charles Grafflin, London.

Techniques: Pink Publishing House, Mathura.

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